



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,083	01/02/2004	Hongsun Hua	BSPAP002C	1323

7590 10/12/2004

Peter B. Martine  
Martine & Penilla, LLP  
Suite 170  
710 Lakeway Drive  
Sunnyvale, CA 94085

EXAMINER

CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
----------	--------------

3753

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/751,083	Applicant(s) HUA, HONGSUN	
	Examiner Ljiljana (Lil) V. Ciric	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☒ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/038,034.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3753

*Election/Restrictions*

**DETAILED ACTION**

*Priority*

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/038,034, filed on January 2, 2002, now abandoned. *Drawings*

2. New corrected drawings are required in this application because the drawings in the application are marked-up copies only, with no formal drawings in the file. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

*Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 through 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yarbrough et al. (U.S. Patent 5,802,864).

Yarbrough et al. discloses a multi-functional thermal installation essentially as claimed, including, for example: a compressor 20 having an inlet and an outlet, and disposed in an enclosed water heater 10, which at least in some modes operates to heat the water in the pool or "well" as broadly interpreted as required [see column 4, lines 17-25; column 6, lines 43-44;

Art Unit: 3753

column 7, lines 24-26]; a switch valve (i.e., reversing valve) 32 coupled to the outlet of the compressor 20; an evaporator (or condenser) 80 comprising a group of heat exchangers (i.e., each pass of the evaporator or of the condenser as shown in Figure 1 of the reference being broadly readable as required on one of the heat exchangers in a "group" of heat exchangers as recited in the claims of the instant application), this group of heat exchangers and fan 83 associated therewith being disposed in an air handler 82 (and also in the room housing the air handler); another group of heat exchangers (i.e., each pass of the plurality of coils of refrigerant conduit 44 being readable on one of the heat exchangers in this group of heat exchangers as recited in the claims of the instant application); another group of heat exchangers (i.e., each pass of the plurality of coils of refrigerant conduit 44 being readable on one of the heat exchangers in this another group of heat exchangers as recited in the claims of the instant application) disposed in a water heater or refrigerant-to-water heat exchanger 40 or in the "water heater" 10, the enclosed water heater 10 or the refrigerant-to-water heat exchanger 40 having a water inlet 42a and a hot water outlet 42b; a condenser (or evaporator) 60 comprising yet another group of heat exchangers (i.e., each pass of the condenser or condensing coil 60 being readable on one of the group of heat exchangers as recited in the claims of the instant application); a pool which reads broadly on the underground well as recited in the claims of the instant application, the pool or "well" being connected to the water inlet 42a of the water heater or refrigerant-to-water exchanger 40 via a pump 46; and an expansion valve 70 coupled directly or indirectly to the various groups of heat exchangers.

Thus Yarbrough et al., while disclosing at least one fan 83 associated with a group of heat exchangers, does not to specifically disclose a plurality of such fans. Nevertheless, duplicating parts for a multiplied effect is generally not inventive unless there are unexpected results associated therewith. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It would therefore have been obvious to one skilled in the art at the time of invention to modify the thermal

Art Unit: 3753

installation of Yarbrough et al. by including more than one fans 83 in order to, for example, keep the size of each fan (and thus the noise level associated therewith) smaller or in order to provide a back-up fan and thus protect against total operational failure in the event one fan motor fails.

*Conclusion*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925.

While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel, can be reached on (703) 308-1272. The NEW central official fax phone number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

October 1, 2004



LJILJANA V. CIRIC  
PRIMARY EXAMINER  
ART UNIT 3753